Amendments to the Specification

Please replace the paragraph beginning on column 1, line 9 and ending on column 1, line 28 with the following paragraph:

> This invention relates to devices for separating oxygen from a more complex gas containing oxygen to deliver the separated oxygen for use. More particularly, the invention relates to solid state electrochemical devices for separating oxygen from a more complex gas.

Please replace the paragraph beginning on column 2 line 40 and ending on column 2, line 63 with the following paragraph:

> The foregoing and other objects are achieved in a modular ceramic oxygen generating system constructed according to the invention wherein an ionically conductive ceramic electrolyte is molded to have a plurality of tubes extending from a support member forming a module. The tubes are closed at the ends thereof outermost from the foregoing surface while open ends of the tube form openings in the support member for the tubes. All surfaces of the electrolyte including the inner and outer surfaces of the tubes and the top and bottom of the [sup port] support member are coated with a porous ionizing electrode material in a continuous fashion. A second coating of a different material may be applied to the same surfaces, if desired, to act as a low resistance current carrier and distributor. The tube-like members are formed into rows and columns on the tube support member. The aforementioned coatings of material are formed into electrical circuits which are created such that the columns of said tubes are connected in parallel while the rows thereof are connected in series. The tube support member includes a lower surface which is

adapted to be joined with a like surface of another element to form an oxygen generator module assembly. A number of module assemblies can [hie] have their output ports connected together to form a system of greater capacity.

Please replace the paragraph beginning on column 3 line 29 and ending on column 3, line 51 with the following paragraph:

Referring again to FIG. **1**, as stated, the element **10** is, for example, formed by an injection molding process from an ionically conductive ceramic electrolyte. By this [molting] molding process element **10** is formed into a series of tubes **12** extending from a generally planar tube support member **14**. In this embodiment the tubes are formed into 28 columns of 8 tubes each, or stated another way, 8 rows of 28 tubes each. The outer end of each tube **12** is closed at **15**. The upper surface **16** and outer surfaces **13** of the tubes **12** along with the closed ends **15** thereof, are then coated with a catalyzing and electrically conductive material. (See FIG. **4**). Likewise, the lower surface **18** (FIG. **3**) and interiors **17** of each of the tubes **12** are coated with a similar electrically conductive material. These coatings form the two electrode surfaces separated by the ceramic electrolyte. A first electrode being connectable to a source of electrical potential at a first polarity and a second electrode being connectable to a source of electrical potential at a second polarity. As best shown in FIG. **3**, a series of vias **20** are provided, which are simply holes extending through the ceramic electrolyte, and these holes are plated through (and filled or plugged) during the electroding process. After the electroding process the electrode material on portions of the upper and lower surfaces **16** and **18** may be burned away to form the desired electrical connections (to be described) through certain vias.

Please replace the paragraph beginning on column 3 line 52 and ending on column 3, line 65 with the following paragraph:

> As stated, the elements **10** and **10'** forming the FIG. **2** assembly are identical and symmetrical so that they may be placed together in the manner shown in FIG. **2** to form complete assembly. A flange member **22** extends outwardly from the lower surface **18** of tube support member **14** around the perimeter thereof so that when the elements **10** and **10'** are placed together as in FIG. **2**, the flange members **22** and **22'** are joined to form a manifold **24** in the interior [therof] thereof between the [lowwer] lower surfaces **18** of the two elements **10** and **10'**. As [bes] best shown in figure **3**, an exit port **26** is provided in tube support member **14** to communicate with the interior of manifold **24**. Outlet ports could also exit along the longer edges of the elements **10** and **10'** to allow side-by-side rather than end-to-end connection of a plurality of assemblies.

Please replace the paragraph beginning on column 4 line 45 and ending on column 5, line 11 with the following paragraph:

> The result of this arrangement, using the FIG. **1** embodiment as an example, is that in the combination of 28 columns of 8 tubes each (8 rows) the electrodes (first and second electrodes) of each tube in each column of 8 tubes are in parallel electrically. Each of the 28 columns are in series electrically. It should be noted that this arrangement is only examples and the sizes of the tubes and the arrangement of the rows and columns of tubes can be varied allowing the design to be an optimized arrangement of the series and or parallel electrical connections to

each tube for best voltage and current distribution. In the illustrated example, if it is assumed that the FIG. 1 module receives power from a 24 volt supply, the voltage applied across each tube would be less than one volt because each column of tubes acts in effect, as one of 28 series resistors. The voltage required to effect the ionization and transport oxygen across such a device is affected by several parameters including operating temperature, differential oxygen partial pressure across the generator, ionic conductivity of the electrolyte, electrical resistance of the electrolyte, electrode interface, spreading resistance of the electrode and resistance of the electrical connections to the generator. In general, however, this voltage is less than one volt and can be a small fraction of a volt in optimized designs. The number of tubes (or columns of tubes) is dependent on the power supply voltage and the desired voltage to be applied to each tube It is to be understood that each column of 8 tubes (and associated vias) in this example could be further subdivided such that 8 separate series of 28 tubes each are formed. However, nonuniformity of electrode characteristics could cause localized [ox reheating] overheating and subsequent burnout of one tube resulting in the loss of the series of 28 tubes. Arranging the tubes into columns as shown with multiple vias provides redundancy and normalization of the current flow.

Please replace the paragraph beginning on column 5 line 19 and ending on column 5, line 23 with the following paragraph:

It is to be understood that while circular or cylindrical tubes having exterior and interior surfaces are shown in the described embodiment other configurations for the "tubes" could be [us] used and the term "tube" is used herein only for purposes of convenience of reference.